



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

April 4
D5304-1
Job Sheet 174484

Part No: D5304-1
Part Name: Crossbolt Spacer



Part Weight: 0 lbs

Job Created: 3/16/18

Due Date: 4/4/18

Type: SOLD

Note: D5304 REV.A IPP REV:A NEW ISSUE 15-09-24 JLM VERIFIED BY:DD

Ship Via:

Job Qty: 20 Ea

22

DAS
21

Status: Scheduled

Priority: Medium

Job Tracking No:

Created By: Marie Lajeunesse

Description:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	20 Ea	3/17/18		0.00	0.00	Start Up Machining-3		JB 18-03-26
100	Hardinge	20 pcs	3/19/18		0.00	1.46	Hardinge		JB 18-03-26
120	QC	20 pcs	3/19/18		0.00	0.00	QC8		21 18-03-22
130	Outsource	20 pcs	4/3/18				MEI001-VC	12	CT 18/04/02
140	Packaging	20 pcs	4/3/18		0.00	0.00	Packaging2		AT 18-03-13
150	QC	20 pcs	4/3/18		0.00	0.00	QC6		11 APR 13 2018
160	HandFinish	20 pcs	4/4/18		0.00	0.20	HandFinish1		BE 18-05-02
170	QC	20 pcs	4/4/18		0.00	0.00	QC7-5		MAY 02 2018
190	Packaging	20 pcs	4/4/18		0.00	0.00	Packaging3-2		9-89
200	QC21-SA	20 Ea	4/4/18		0.00	0.00	QC21		21 MAY 02 2018

Part Op 100 - 1- Machine as per Folio FB

Descriptions: 130 - 1--Issue P/O to Metcore ; P/O 039483 HEAT TREAT TO T4/T42 CONDITION MIN. UTS=30 KSI (60 HREW MIN) NOTE: DETAIL C OF C REQUIRED PART ARE MADE FROM 6061-T6 MATERIAL

160 - WASH SPACER AS PER QSI005

190 - ***STOCK IN SKIDTUBE CELL***

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M6061T6T0.750W.125	6061-T6 Round Tube .750 X .125W	8.6600 ft (.433 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	M6061T6T0.750W.125	9	12	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Crossbolt Spacer	5.200Inches ± 0.010	5.210 5.190		
2	Crossbolt Spacer	0.750Inches + 0.008 - 0.001	0.758 0.749	Diameter	
3	Crossbolt Spacer	0.125Inches ± 0.010	0.135 0.115		

DQA: _____ Date: _____

QA Closed: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____ Date : _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	Skid-tube ☐ Machining ☐ Thermoforming ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>			Cross tube ☐	Water Jet ☐	Engineering ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Composite ☐	Supplier ☐	
Cross tube ☐	Water Jet ☐	Engineering ☐															
Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Composite ☐	Supplier ☐																
			MRB (QSI042) Approval _____ tion														
			Completed By _____														
			Lead hand / Supervisor Approval Verification _____														
			QC / QA Coordinator Approval _____														

Dart Aerospace Ltd.
 1270 Aberdeen Street
 Hawkesbury, ON K6A 1K7
 CANADA
 TEL.: 1 813 632-5200
 Email: sales@dartaero.com
 www.dartaerospace.com

DART
AEROSPACE

Container No: S055016
 Part: D5304-1
 Job No: 174484
 Serial No/Batch: S055016
 Revision: A
 Inspector:

Date: 03/26/18

Environment									
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Internal Transport									
Tribal Knowledge									
LOA									
Substation									
Past Expiry Date									
Misidentified									

Onset/Setup									
Supplier									
Training									
Use for Testing									
Poor Information									
Rushing									
Product Improvement									
Process Improvement									
Manufacturing Process									
Past Due									

OTHER : _____



Dart Aerospace Ltd.
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Canada

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PURCHASE ORDER **PO039483**

Supplier: MEI001-VC
Metcor Inc.
560 Boul. Arthur Sauve
Saint-Eustache
QC
J7R 5A8 Canada
Phone: 450 473 1884
Fax: 450 491 5498

PO No: PO039483
PO Date: 4/2/18
Due Date: 4/12/18
Purchase Order Revision:
Revision Date:
Ship-To Contact: Tsimiklis, Chrisoula

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pynt Terms: Net 30
Freight Terms:
Special Comments:

Items										
Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	174484	D5304-1	Crossbolt Spacer 1-Issue P/O to Metcore ; P/O HEAT TREAT TO T4/T42 CONDITION MIN. UTS=30 KSI (60 HREW MIN) NOTE: DETAIL C OF C REQUIRED PART ARE MADE FROM 6061-T6 MATERIAL	Firmed	4/12/18	22 pcs	0 pcs 22x	22 pcs AT 18/04/13	\$1.207052/pcs	\$26.56
2	174482	D4686-1	Spacer HEAT TREAT TO T4/T42 CONDITION MIN. UTS=30 KSI (60 HREW MIN) NOTE: DETAIL C OF C REQUIRED PART ARE MADE FROM 6061-T6 MATERIAL	Firmed	4/12/18	25 pcs	0 pcs 25x	25 pcs AT 18/04/13	\$1.207052/pcs	\$30.18
3	171982	646.3314	Blade HEAT TREAT AS PER DWG 646.3300 FINISH: HEAT TREAT TO 58-62 RC ROCKWELL HARDNESS PART ARE MADE FROM AISI A2 TOOL STEEL	Firmed	4/12/18	16 pcs	0 pcs 16x	16 pcs AT 18/04/14	\$19.50/pcs	\$312.00

DAS
11
9-89

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

Télécopieur / Fax production: 450 491-6454

Certificat de Conformité

Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
326642	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K8A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K8A 1K7

1

COMMANDE DU CLIENT customer po	CLASSIFICATION PIECE part classification	MATÉRIEL material	MAÎTRE D'OEUVRE prime contractor	PROGRAM
039483	N/A	AL-6061		

SPECIFICATIONS DU PROCÉDÉ

processing specifications

SOL ANNEAL

SINGLE AGING TO CONDITION T42

EXIGENCE / requirement	SPECIFICATIONS / specified	TESTS EXÉCUTÉS / performed	RÉSULTATS DE TESTS / results
CONDUCTIVITY	35 - 43 %IACS	20	39 - 41 %IACS
HARDNESS	60 HREW MIN	20	61 - 62,5 HREW
			DURETE MESUREE EN HR15TW 63-64 HR15TW

QUANTITÉ quantity	POIDS weight	DESCRIPTION DES PIÈCES parts description
553	20	D5304-1 (22) D5304-1 JOB. 17448 (25) D4686-1 JOB 174482 (506) D4202-1 JOB 173722 1 BOITE DE CARTON

COMMENTAIRES / comments

APPROUVÉ par / Approved by:

DATE: 2018-04-12

Pierre Piché
Chief Inspector



APPROUVÉ

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

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Télécopieur / Fax production: 450 491-6454

Certificat de Conformité Détaillé

Detailed Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
326642	1

CLIENT / customer 215

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COMMANDE DU CLIENT customer po	CLASSIFICATION PIECE part classification	MATÉRIEL material	MAÎTRE D'OEUVRE prime contractor	PROGRAM
039483	N/A	AL-6061		
SPÉCIFICATIONS DU PROCÉDÉ processing specifications				
SOL ANNEAL				
SINGLE AGING TO CONDITION T42				
EXIGENCE / requirement	SPÉCIFICATIONS / specified		TESTS EXÉCUTÉS / performed	RÉSULTATS DE TESTS / results
CONDUCT	35 - 43 %IACS		20	39 - 41 %IACS
			(60 kHz)	
HARDNESS	60 HREW MIN		20	61 - 62.5 HREW
				DURETE MESUREE EN HR15TW 63-64 HR15TW
QUANTITÉ quantity	POIDS weight	DESCRIPTION DES PIÈCES parts description		
553	20	D5304-1 (22) D5304-1 JOB. 17448 (25) D4686-1 JOB 174482 (506) D4202-1 JOB 173722 1 BOITE DE CARTON		

COMMENTAIRES / comments

SOL. ANNEAL 985F, 40 MIN
AGE HARDEN AMBIANT, 96 HRS

Heat treatment (HT) was performed with equipment that meets the requirements of requested specification. All HT operations were performed in compliance with the required HT specification and all verifications have been performed and documented. No unauthorized changes were performed in regards to the HT. We certify that the material was manufactured, sampled, tested and inspected in accordance with the material specification and the purchase order and was found to meet the requirements.

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Le traitement thermique (TT) a été fait en utilisant des équipements en conformité avec la spécification demandée. Toutes les opérations de TT ont été faites en conformité avec les requis de la spécification demandée et toutes les vérifications et les tests demandés ont été faites et documentés. Aucun changement n'a été faite par rapport au TT. On certifie que le matériel a été fabriqué, échantillonné, testé et inspecté en accord avec les spécifications du matériel et le bon de commande et le matériel rencontre les exigences spécifiées.

Ce document et les documents qui lui sont joints peuvent contenir des informations confidentielles, être soumis aux

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

Télécopieur / Fax production: 450 491-6454

Certificat de Conformité Détaillé

Detailed Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
326642	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

LIVRÉ À / shipped to:

1

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

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APPROUVÉ par / Approved by:

Isabel Otero
QA Technician



DATE: 2018-04-13